

**Interim Action Work Plan
UST Installation at Seafarers' Memorial Park
Cap Sante Boat Haven Fuel Dock
Former Scott Paper Company Mill Site
Anacortes, Washington**

September 29, 2005

Prepared for

**Port of Anacortes
Anacortes, Washington**



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1.0 INTRODUCTION

The Port of Anacortes (Port) intends to perform an interim action associated with installation of two 15,000-gallon underground storage tanks (USTs) for the new fuel dock at the Cap Sante Boat Haven in Anacortes, Washington. The new USTs will be located just west of the existing Park building at Seafarers' Memorial Park, which is within the uplands area (Uplands Area) of the northern portion of the former Scott Paper Company mill site (Property) (see Figures 1 and 2).

A Remedial Investigation/Feasibility Study (RI/FS) of the Uplands Area is being conducted under Consent Decree No. 03 2 00492 1 between the Washington State Department of Ecology (Ecology) and the Port for the Property (Consent Decree; Ecology 2003). The RI/FS is currently being implemented by the Port in accordance with the Uplands Area RI/FS Work Plan (RI/FS work plan; Landau Associates 2003) and work plan addendum (Landau Associates 2004). The draft RI report for the Uplands Area (Landau Associates 2005) has been submitted for review by Ecology. A marine area RI/FS will also be implemented in accordance with a work plan approved by Ecology.

The Port is redeveloping portions of the Cap Sante Boat Haven, located north of the former Scott Paper Company mill site. As part of the redevelopment, the existing fuel dock will be demolished and the associated USTs removed. The new fuel dock will be located adjacent to Seafarers' Way, east of the existing A dock (see Figure 3). The planned location for the two new end-to-end USTs is in the asphalt-paved area west of the Park Building, as shown on Figure 3. Because soil contamination is present at depth at the planned location of the new USTs, soil excavation and removal activities required for UST installation will be conducted as an interim action and the excavated material will be disposed at an appropriate upland solid waste landfill facility.

The interim action will be conducted under the Consent Decree after this interim action work plan, prepared in accordance with Ecology's Model Toxics Control Act regulations (MTCA; WAC 173-340-430), is approved by Ecology. Installation of the new USTs is planned for early fall of 2005.

1.1 SITE LOCATION

The site is located on Port property at Section 19, Township 35 North, Range 2 East, (Latitude 48° 30'N, Longitude 122° 36'W) at Seafarers' Memorial Park, which is located along the eastern portion of the Uplands Area and the Cap Sante Waterway in Anacortes, Washington (see Figures 1 and 2).

The Uplands Area is bordered by property owned by MJB Properties, Inc. to the south; Fidalgo Bay to the east; Cap Sante Waterway and Cap Sante Boat Haven to the north; and Q Avenue to the west. The Uplands Area is located on the northern portion of the former Scott Paper Company mill site. The Uplands Area consists of three subareas referred to as Parcels 1, 2, and 3 (see Figure 2). The uplands

portion of Seafarers' Memorial Park, owned by the Port, is located on Parcel 3. Parcel 1, currently undeveloped, is also owned by the Port. Parcel 2 has been subdivided; current owners include Anacortes Concept LLC, Northwest Educational Service District #189, Seafarer's LLP, and ASAP Investments. Parcel 2 is comprised of commercial buildings, parking, landscaped areas and areas proposed for commercial development. Parcel 3, where the interim action will be conducted, consists of Seafarers' Memorial Park and various asphalt-paved roads and parking areas.

1.2 REPORT ORGANIZATION

Section 2.0 of this report presents a summary of project area background information. Section 3.0 presents the evaluation and discussion of the interim action. Section 4.0 summarizes the use of this report. Section 5.0 presents the references for this document.

2.0 BACKGROUND INFORMATION

This section briefly summarizes project area background information, including existing site features, site history, geology and hydrogeology, and environmental site conditions.

2.1 EXISTING SITE FEATURES

The interim action UST installation project is located at Seafarers' Memorial Park, in Parcel 3 of the Uplands Area. As indicated on Figures 2 and 3, the new USTs will be located within the asphalt-paved area just west of the existing Park building, and the associated fuel supply lines will be buried at a relatively shallow depth below the paved roadways to the north and west of the Park Building from the USTs to their connection with the new fuel dock abutment along the north side of Seafarers' Way.

The location of the planned fuel dock facilities relative to the Cap Sante Boat Haven, the Park Building, and other existing site features are shown on Figure 3 and on the preliminary project drawings in Appendix A.

2.2 SITE HISTORY

Historic activities at the Property included sawmill operations and activities related to the pulp mill, which was located on the southern portion of the former Scott Paper Company mill site (Site). Historical activities at the Property and on the southern portion of the Site, including ownership and plant operations, have been described in detail in other documents (ThermoRetec 1999; Ecology & Environment 2000) and are summarized in Section 2.1 of the *Comprehensive Evaluation of Existing Data, Former Scott Paper Mill Site, Anacortes, Washington (Comprehensive Evaluation Report; Anchor 2002)*. Historical records indicate that features at the Property included two storage sheds, a chip shed, chip bins, fuel bins, a dry kiln, a refuse burner, a boiler room, a smokestack, aboveground petroleum tanks, and numerous docks and piers.

The mill was closed in 1978 and the mill properties subsequently sold. Over time, some development has occurred that included demolition of the buildings, placement of fill material, and removal of pulp and woody debris.

2.3 GEOLOGY AND HYDROLOGY

The subsurface geology and hydrogeology in Parcel 3 of the Uplands Area has been documented in the draft Uplands Area RI report (Landau Associates 2005), which should be referenced for a more complete understanding of subsurface soil and groundwater conditions in the project vicinity. Figures 5

through 10 are reproduced from that draft RI report. Figure 5 indicates the locations of soil explorations in Parcel 3; Figure 6 shows the location of subsurface cross sections in the area, and Figures 7 through 10 present the cross sections. Note that Cross Section C-C' on Figure 9 is a north-south section through the planned UST location, and has been annotated to indicate the approximate location of the planned excavation for the fuel vault that will contain the two USTs and the planned trench excavation for the fuel supply piping. Cross section A-A' on Figure 7 is an east-west section along Seafarers' Way and has been annotated to indicate the approximate location of the planned trench excavation for the fuel supply piping that connects to the new fuel dock off of Seafarers' Way. Selected boring logs and monitoring well construction details are included in Appendix B.

In general, the subsurface materials consist of multiple layers of fill overlying native marine sediment and glacial deposits. The fill layers include a surficial layer of granular fill (silty, gravelly sand), underlain in some areas by a black, sandy silt to silty sand fill layer with varying amounts of wood debris; overlying a relatively thick layer of wood debris (described as sawdust, wood chips, and lumber). The thickness of the wood debris across Parcel 3 ranges from about 4 to 18 ft, as indicated in Table 1. As shown on the cross sections on Figures 7 through 10, the wood debris layer extends below mean lower low water (MLLW) in the project area, and a native gray silt layer is present under the fill material.

Based on data collected during Property investigations, groundwater at the Property generally occurs within the fill material above the native silt deposits (ENSR 1993; ThermoRetec 1999; Anchor 2002; Landau Associates 2005) and is expected to be encountered at a depth of about 7 to 10 ft below ground surface (BGS) in the project vicinity. Groundwater in the vicinity of the Uplands Area generally flows north toward Cap Sante Waterway and northeast toward Fidalgo Bay (ThermoRetec 1999; Ecology & Environment 2000; Anchor 2002; Landau Associates 2005).

2.4 ENVIRONMENTAL SITE CONDITIONS

Available soil and groundwater quality data associated with Uplands Area investigations are summarized in the Uplands Area RI/FS work plan (Landau Associates 2003) and draft Uplands Area RI report (Landau Associates 2005). The work plan includes relevant data obtained during previous investigations and remedial actions at the former Scott Paper Company mill site that were compiled and evaluated in the Comprehensive Evaluation Report (Anchor 2002). The draft Uplands Area RI report documents environmental conditions in Parcel 3 soil and the Uplands Area groundwater, and should be referenced for a more complete understanding of the chemical characterization of subsurface soil and groundwater in the project vicinity.

2.4.1 SOIL

Based on the Uplands Area investigations, contaminants that may be present in Parcel 3 soil at concentrations above preliminary cleanup levels include metals (lead), carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and diesel-range and/or motor oil-range petroleum hydrocarbons. Dioxins/furans have been detected above preliminary cleanup levels at some locations in the Park, but not at locations or depths planned to be excavated for this project. Analytical results for detected constituents are presented in Table 2 (taken from Table 9 of the draft Uplands Area RI report). Note that the results for samples from the explorations in the paved areas where the USTs and associated piping are planned to be installed (borings LSB-5, B-13, and LSB-6) indicate that the upper 6 ft of soil in this area does not contain chemical constituents above the preliminary cleanup level protective of direct human contact.

2.4.2 GROUNDWATER

Based on the Uplands Area groundwater investigations, 4-methylphenol may be present in groundwater in the project vicinity at concentrations above the preliminary cleanup level based on protection of marine surface water. Arsenic, bis(2-ethylhexyl)phthalate, and ammonia have been detected in groundwater at concentrations exceeding preliminary screening levels protective of marine surface water, but not at locations near the project. Analytical results for detected constituents in groundwater are presented in Table 3 (taken from Table 4 of the draft Uplands Area RI report). Analytical results for the product sample collected from well MW-110 during the April 2004 sampling event, and the groundwater surface sample collected from well MW-110 during the August 2004 sampling event (identified as MW-110B), are presented in Table 4 (taken from Table 10 of the draft Uplands Area RI report).

3.0 INTERIM ACTION

This section presents a summary of the evaluation, selection, and details of the interim action fuel dock UST project at the Cap Sante Boat Haven at the Port of Anacortes.

The Port of Anacortes is redeveloping portions of the Cap Sante Boat Haven, located north of the former Scott Paper Company mill site. As part of the redevelopment, the existing fuel dock will be demolished and the associated USTs will be removed. The new fuel dock will be located adjacent to Seafarers' Way, east of the existing A-Dock. The planned location for the two USTs associated with the fuel dock is in the asphalt-paved area west of the Seafarers' Memorial Park building. The locations of the planned fuel dock, USTs, and associated fuel supply lines are shown on Figure 3. Because soil contamination is present at the project location, excavation required for installation of the UST fuel vault and associated fuel supply lines will be conducted as an interim action under Consent Decree No. 03 2 00492 1 and the excavated material that is potentially contaminated will be disposed at an offsite solid waste landfill facility.

Installation of the new USTs and associated fuel supply lines is planned for the fall of 2005. The new fuel dock is planned to be in operation by the end of the first quarter of 2006. Two new 15,000-gallon USTs will be installed within a concrete fuel tank vault, and associated fuel supply lines will be installed in trenches to provide fuel to the new fuel dock. Details of these facilities are shown on Figures 3 and 4, and on the project drawings in Appendix A. The fuel tank vault will be about 16 ft wide and 71 ft long, and the bottom of the tank vault excavation will be about 19 ft BGS. The fuel supply lines (approximately 350 ft of pressurized, double-containment fiberglass piping) will be installed at a relatively shallow depth, approximately 2 to 4 ft BGS, and will connect to the fuel dock abutment sump located in a small, shallow vault below the existing sidewalk along the new fuel dock.

Prior to and/or during the fuel tank vault excavation, dewatering is planned to depress the water level below the planned excavation depth. Given the typical depth to groundwater, dewatering of the shallow trenches for the fuel supply lines and the abutment sump is not anticipated. The fuel tank vault excavation will be made as an open excavation or temporary steel sheetpiles will be installed around the planned tank excavation to provide added stability for the excavation and limit the amount of dewatering necessary for the project. The tank vault will be installed near the location of borings LSB-5, B-13, and B-14 and monitoring well MW-110. Based on soil quality information from these borings, excavated material below the surficial granular fill layer is likely to contain diesel-range and/or motor oil-range petroleum hydrocarbons, cPAHs, and lead at concentrations above preliminary soil cleanup levels identified in the draft Uplands Area RI report. The trench excavations for the fuel supply lines and abutment sump are relatively shallow and are anticipated to primarily encounter clean fill material;

however, any wood waste or potentially contaminated material encountered will be handled as described in Section 3.3.1.

Groundwater extracted during excavation dewatering is likely to contain 4-methylphenol and entrained soil particles with lead, cPAHs, and diesel-range and/or motor oil-range petroleum hydrocarbons. Treatment of extracted groundwater will be conducted prior to discharge to the sanitary sewer to ensure the designated pretreatment limits are met.

3.1 PURPOSE OF THE INTERIM ACTION

The purpose of the interim action fuel dock UST project at Seafarers' Memorial Park is to remove contaminated soil at the planned fuel tank vault location that must be excavated to allow for installation of new USTs as part of development of a new fuel dock at the Cap Sante Boat Haven, and to assure that future operation of the fuel dock USTs will be environmentally sound. This interim action meets the criteria of WAC 173-340-430(1), (2), and (3) for an interim action as described below.

The interim action is technically necessary to install the new fuel dock USTs, and will reduce the threat of further exposure to or migration of contaminated materials at the fuel tank vault location, which could be a threat to human health or the environment.

The project area lies within the area currently under the Consent Decree. An RI/FS is being conducted for the Uplands Area; however, the study and final cleanup action plan are not yet completed. The interim action described in this work plan will provide for cleanup of contaminated materials at the new fuel tank vault location, and will not foreclose reasonable alternatives for cleanup of the remaining portions of the Property.

The Port will perform this interim action in accordance with the applicable provisions of the Consent Decree and the MTCA requirements for interim actions in WAC 173-340-430.

3.2 ALTERNATIVE INTERIM ACTIONS CONSIDERED

Alternatives that were considered included: 1) no action; 2) direct burial of the USTs; and 3) enclosure of the USTs in a concrete-lined fuel tank vault (the selected alternative).

The no action alternative was not selected because it is inconsistent with the Port's plans for redevelopment of the Cap Sante Boat Haven. Direct burial of the USTs, which would require excavation of less contaminated material, was not selected because of concerns related to encountering soil contamination near the USTs during any future subsurface operation and maintenance (O&M) activities needed for the USTs, and because use of a vault would facilitate detection and repair of any future leaks from the USTs.

3.3 INTERIM ACTION DESIGN AND CONSTRUCTION DETAILS

The interim action consists of removal of existing pavement sections in the designated work area; installation of a temporary excavation shoring system for the fuel tank vault (if it is determined that an open excavation is not practicable); excavation and offsite disposal of potentially contaminated soil and wood debris encountered in the fuel tank vault excavation; dewatering and treatment of extracted water prior to discharge to the sanitary sewer system; installation of the fuel tank vault, USTs, and associated fuel lines to the fuel dock abutment sump; excavation backfilling; and site restoration activities.

Certain design and construction details for the interim action fuel dock UST project are shown on the drawings in Appendix A. These drawings include details for the fuel dock to be installed near the existing A-Dock at the Cap Sante Boat Haven, which is not considered part of this interim action.

3.3.1 SOIL EXCAVATION AND DISPOSAL

Conventional earthwork equipment (such as excavators, backhoes, dozers, etc.) will be used to perform the site earthwork and soil excavation/disposal activities. Construction will occur from the upland portions of the site, and temporary erosion and sedimentation control measures will be implemented by the contractor as needed during construction.

Following removal of existing pavement, a temporary shoring system will be installed for the deep fuel tank vault excavation if it is determined that an open excavation is not practicable. This decision will be made considering factors that include maintaining the stability of adjacent structures and utilities, and the cost of treating and disposing of larger volumes of potentially contaminated water that would need to be extracted from a deep, open excavation.

The upper portion of the granular fill material that is not contaminated will be excavated and stockpiled for potential reuse if it meets the project requirements for backfill material; otherwise, it will be disposed along with the other materials removed from the excavation. Any granular fill material intermixed with wood debris, silty/sandy fill material with wood debris, wood debris, and native silt encountered in the excavation will be managed as contaminated material and disposed at an appropriate permitted upland solid waste landfill facility. It is currently estimated that about 1,000 yd³ of excavated material will be disposed at an upland landfill.

The planned depth of the trenches for the fuel supply lines and the fuel dock abutment sump vault is shallow (i.e., 2 to 4 ft BGS); therefore, it is expected that only granular fill will be removed during excavation. However, if other material is encountered, its location will be documented, it will be considered potentially contaminated, and it will be managed as contaminated material. One or more samples of the potentially contaminated material will be collected and submitted for laboratory analysis

for the contaminants most likely to be present, cPAHs using U.S. Environmental Protection Agency (EPA) Method 8270 with selected ion monitoring (SIM), lead using EPA Method 6010, and diesel-range and motor oil-range petroleum hydrocarbons using Ecology Method NWTPH-Dx. The number of samples collected will be determined based on the extent of potentially contaminated material encountered. One sample will be collected for every 40 linear ft of material encountered. If more than one type of potentially contaminated material is encountered that is not granular fill a sample will be collected from each type at a maximum spacing of 40 linear ft along the trench.

Handling of potentially contaminated material will be conducted using conventional health and safety protocols, including provisions for spill containment, dust control, equipment decontamination, and recordkeeping. It is anticipated that excavated material will be loaded directly into trucks or containers that will be transported to the waste transfer station used by the offsite landfill, where the material will be loaded into rail containers and shipped to the landfill for disposal. If required to control free liquids, the excavated material may be temporarily stockpiled in the excavation area (or at a suitably contained stockpile area) and allowed to drain until it meets the landfill's requirements for free liquids. It is anticipated that wetter materials would be mixed with drier materials in lieu of adding absorbent materials to control free liquids.

3.3.2 EXCAVATION DEWATERING AND EXTRACTED WATER TREATMENT/DISPOSAL

As the fuel tank vault will require excavation about 10 ft below the water table, temporary dewatering will be required to depress the water table to below the base of the excavation. The type of excavation dewatering used will be a function of the excavation method used and the preferences of the contractor. If an open excavation is used, it is likely that a well point system would be used for temporary dewatering, and the volume of extracted water would be greater than from a shored excavation. Dewatering from sumps located within the excavation would likely be used if temporary sheet piling was used to shore the sides of the deep excavation.

The City of Anacortes wastewater treatment plant (WWTP) is non-delegated by Ecology for establishment of pre-treatment requirements for discharges other than domestic wastewater. Therefore, Ecology retains the authority to establish water quality limits, frequency of compliance sampling, discharge flow rate, and duration of sewer connection for discharge of water to the WWTP from excavation dewatering activities.

A written request will be submitted to Ecology for sewer discharge authorization. The request will include plans for the UST installation and plans for collecting, treating, and discharging the water generated from construction dewatering. Based on UST area analytical data, dewatering activities

conducted in 1999 for the Sun HealthCare Systems, Inc. excavations at Parcel 2, and Ecology's requirements for pretreatment at that site, the proposed water treatment system will include:

- Large weir settling tank(s) to provide initial solids settling and act as a trap for floating oil, if any. An oil/water separator may be added downstream if it is determined that the weir tank(s) are not providing adequate retention time to remove oil (e.g., to less than approximately 20 mg/L).
- A solution of approximately 35% hydrogen peroxide will be metered into the weir tank as necessary to oxidize hydrogen sulfide and meet the pretreatment requirement.
- Filtration will be performed using sand filters, bag filters, or cartridge filters (or a combination of filtration methods) to achieve total suspended solids concentration less than approximately 50 mg/L.

The Port and its representatives will discuss water treatment requirements with Ecology personnel responsible for approving discharges to the City of Anacortes WWTP to determine if any modification to the proposed water treatment system is warranted. If required by Ecology, additional treatment steps may be added prior to discharge to the sanitary sewer.

Ecology authorized a maximum discharge flow rate of 150 gallons per minute (gpm) for the Sun HealthCare Systems, Inc. site, which had a larger but shallower excavation area than the planned UST installation project. Authorization will be requested for discharge at that same rate, up to 150 gpm.

3.3.3 SITE BACKFILLING AND RESTORATION

Following installation of the fuel tank vault and the associated fuel supply lines, the excavations will be backfilled with suitable granular fill materials, including potential reuse of existing surficial granular fill removed from the excavations.

The paved and unpaved portions of Seafarers' Memorial Park that are disturbed by construction activities will be restored by regrading and paving or placement of sod in currently unpaved areas.

Significant impacts to groundwater flow by the UST vault and associated fuel supply lines are not expected. Groundwater will flow around the vault, but this should only impact groundwater flow in the near vicinity of the vault. Because the depth of the new fuel supply lines is expected to be shallower than the depth to groundwater and because the area will be paved, the fuel supply lines are not expected to create a groundwater preferential pathway. Similarly, significant impacts to groundwater quality are not expected. Because the interim action area is not large compared to the overall site area, replacement of contaminated material with clean backfill during the interim action is not likely to significantly affect any contaminant concentrations in groundwater.

3.4 CONSTRUCTION TIMING

Site earthwork and UST installation is anticipated to take about 2 to 3 months to complete. It is currently anticipated that construction will be completed by the end of 2005.

3.5 INTERIM ACTION CLEANUP LEVELS

The interim action involves removal of contaminated materials associated with the Uplands Area and confirmation sampling at the base of the excavation. However, excavation limits will be determined based on fuel tank vault construction requirements; comparison of remaining soil concentrations with interim action cleanup levels will not be performed. All excavated material other than near-surface granular fill material (from upper 6 ft) will be disposed offsite at an appropriate, permitted solid waste landfill facility.

3.6 HEALTH AND SAFETY PLAN

A health and safety plan has been prepared for the fuel dock UST project because the planned construction activities will involve potential exposure to known contaminated materials. Landau Associates' project health and safety plan is included in Appendix C. The contractor that will conduct the soil excavation/disposal operations and associated temporary dewatering activities will be required to prepare and implement its own site-specific health and safety plan for the project.

3.7 COMPLIANCE MONITORING

The fuel dock UST project involves removal, handling, and disposal of known contaminated materials associated with the Uplands Area. Accordingly, certain MTCA compliance monitoring requirements in WAC 173-340-410 are considered applicable for this interim action

MTCA compliance monitoring activities typically include:

- Protection monitoring to confirm that human health and the environment are adequately protected during construction of the interim action, as described in a health and safety plan
- Performance monitoring to confirm that the interim action has attained the cleanup standards established for the project and other performance standards (such as construction quality control monitoring necessary to demonstrate compliance with project permits)
- Confirmational monitoring to confirm the long-term effectiveness of the interim action once the cleanup standards and other performance standards have been attained.

Protection monitoring is required for this interim action because it will involve exposure to known contaminated materials in Parcel 3 of the Uplands Area. The contractor that will conduct the soil

excavation/disposal operations and associated temporary dewatering activities will be required to prepare and implement a site-specific health and safety plan for the project.

Performance monitoring is applicable because the excavation for the fuel tank vault will be conducted in a manner to remove the potentially contaminated materials down to the bottom of the subgrade layer for the vault. Removal of soil and fill material will be based on the requirements for the fuel tank vault installation; therefore, no soil sampling and analysis is planned to document that the soil remaining at the base of the excavation achieves the preliminary soil cleanup levels identified in the Uplands Area RI report. Sampling and analysis of extracted groundwater will be conducted as required to confirm that the water has been pretreated to meet the requirements for discharge to the sanitary sewer system. Construction quality control measurements will be made by the Contractor and construction quality assurance observations will be made by the Port and its representatives to document the work and confirm the contractor's conformance with the interim action construction requirements and the pertinent requirements of project permits.

Confirmational monitoring will be performed but, as mentioned in Section 3.5, comparison of remaining soil concentrations with interim action cleanup levels will not be performed. The interim action is intended to facilitate installation of the new fuel dock USTs, but is not intended to remove contamination outside of the UST vault area. The Port will complete the Uplands Area RI/FS and other requirements under the Consent Decree including any further confirmational monitoring that may be required. Confirmational monitoring during the interim action will consist of collecting confirmation samples from the base and, if possible, the sidewalls of the excavation prior to backfilling and submitting the samples for laboratory analysis. To collect data representative of the soil remaining at the base of the excavation, the base of the excavation will be divided in half and one soil sample will be collected from the center of each half. Because of the depth of the excavation (19 ft BGS), the excavator bucket will be used to scrape the upper 6 inches of soil in each half of the excavation. Using a decontaminated stainless-steel spoon, a sample of soil not in direct contact with the excavator bucket will be collected and placed in a decontaminated stainless-steel bowl, homogenized, and transferred to the appropriate sample container. Material greater than about ¼ inch will be removed from the sample prior to placing the soil in the sample container.

If full-depth sheet piles are used to support the sidewalls of the deep excavation, it will not be practicable to collect sidewall samples. However, if open excavations are used or it is possible to collect representative sidewall samples during extraction of the sheet piles, then the following sampling will be conducted. To collect samples along the sidewalls of the excavation, the excavator bucket will be used to scrape the portion of the sidewall where wood debris is present. One sample will be collected from each of the north and south sidewalls of the excavation. Two samples will be collected along the east and west

sidewalls of the excavation. Samples will be collected from the excavator bucket using a decontaminated stainless-steel spoon. The sample will be collected from a portion of material that is not in direct contact with the excavator bucket. The sample will be placed in a decontaminated stainless-steel bowl, homogenized, and transferred to the appropriate sample container. Material greater than about ¼ inch will be removed from the sample prior to placing the soil in the sample container.

The confirmation soil samples will be analyzed for cPAHs using EPA Method 8270-SIM, lead using EPA Method 6010, and diesel-range and motor oil-range petroleum hydrocarbons using Ecology Method NWTPH-Dx. Laboratory analysis will be performed by Analytical Resources, Inc., located in Seattle, Washington.

3.8 REPORTING

An interim action completion report will be prepared and submitted to Ecology following construction to document the interim action and the as-built conditions for the Cap Sante Boat Haven fuel dock UST project.

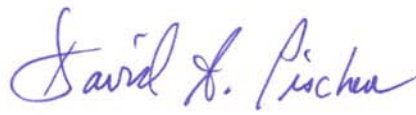
4.0 USE OF THIS REPORT

This work plan has been prepared for the exclusive use of the Port of Anacortes and its project consultants for specific application to the Cap Sante Boat Haven fuel dock UST project at Seafarers' Memorial Park. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

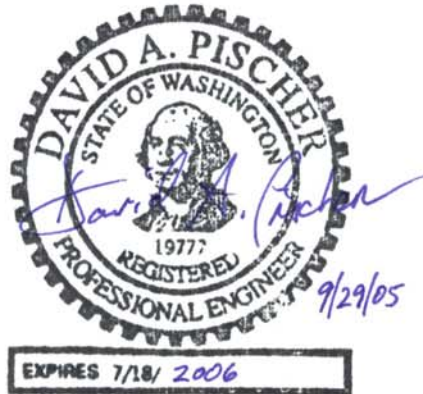
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5.0 REFERENCES

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